CLAIM AMENDMENTS:

Claims 1 through 74 cancelled.

75. (new) A method for producing a bristle from thermoplastic polymers by injection molding a molten polymer mass into a bristle molding channel, said channel having a predetermined length and a predetermined cross sectional shape along said length, the method comprising the steps of:

a) injecting the molten polymer mass into said channel under pressure, said pressure being selected in dependence on said cross sectional shape of said channel, a ratio of a largest width of a cross section of said channel to said length of said channel being selected as less than or equal to 1:10; and

b) venting said channel along said length during step a), wherein a shear flow is established with high core speed in a center of molten polymer mass flow and with a large shearing effect due to wall friction of the molten polymer mass under distinct longitudinal orientation of polymer molecules, at least in a portion of the molten polymer mass proximate a wall of said channel, said longitudinal orientation of the polymer molecules being maintained throughout said length of said channel.

76. (new) The method claim 75, wherein said injection pressure is at least 500 bar ($0.5x10^5$ kPa).

77. (new) The method of claim 75, wherein said injection pressure is set to 2000 to 5000 bar ($2x10^5$ kPa to $5x10^5$ kPa).

78. (new) The method of claim 75, wherein said injection pressure is set such that the molten polymer mass in said bristle-molding channel has a specific pressure of more than 300 bar ($0.3x10^5$ kPa).

79. (new) The method of claim 75, wherein said injection pressure is set to support crystal seed formation between neighboring longitudinally oriented molecular sections in dependence on said cross sectional shape and said length of said bristle-molding channel.

80. (new) The method of claim 75, wherein said bristle-molding channel is cooled.

81. (new) The method of claim 75, wherein said bristle-molding channel is vented transverse to a flow direction of the molten polymer mass.

82. (new) The method of claim 81, wherein said bristle-molding channel is vented in several planes disposed transverse to a flow direction of the molten polymer mass.

83. (new) The method of claim 82, wherein said bristle-molding channel is vented along said length via planes disposed at approximately equal distances.

84. (new) The method of claim 75, wherein said bristle-molding channel is vented of air displaced by flow pressure of the molten polymer mass.

85. (new) The method of claim 75, wherein said channel is vented with assistance of an external underpressure.

86. (new) The method of claim 75, wherein said cross section of said bristle-molding channel remains substantially constant, beginning at an injection side thereof.

87. (new) The method of claim 75, wherein said cross section of said bristle-molding channel tapers substantially continuously from an injection side thereof.

88. (new) The method of claim 75, wherein the molten polymer mass is injected into an inlet region which narrows like a nozzle towards said bristle-molding channel to produce an extension flow.

89. (new) The method of claim 75, wherein said cross sectional shape of said bristle-molding channel has at least one discontinuity configured as a tapering in a flow direction of the molten polymer mass.

90. (new) The method of claim 75, wherein said cross section of said bristle-molding channel is selected to have a maximum width of $\leq$ 3mm.

91. (new) The method of claim 75, wherein a ratio of a largest width of said channel to said length of said channel is selected to be $\leq$ 1:250.

92. (new) The method of claim 75, wherein the molten polymer mass is simultaneously injected into several neighboring bristle-molding channels thereby forming a corresponding number of bristles.

93. (new) The method of claim 92, wherein, the molten polymer mass is injected into neighboring bristle-molding channels while simultaneously forming a connection between at least two bristles.

94. (new) The method of claim 92, wherein, after injection of the bristles, a molten polymer mass of another polymer is subsequently injected, thereby forming a connection between at least two bristles.

95. (new) The method of claim 92, wherein the molten polymer mass is injected to form a bristle support which connects at least two or more bristles.

96. (new) The method of claim 93, wherein the molten polymer mass is injected to form a bristle support which connects the bristles and forms a brush body.

97. (new) The method of claim 95, wherein at least one further molten polymer mass from another polymer is injected onto said bristle support.

98. (new) The method of claim 92, wherein a number of bristles are injected with different lengths.

99. (new) The method of claim 92, wherein a number of bristles are injected with different cross sections.

100. The method of claim 92, wherein a number of bristles are injected with a cross sectional shape which changes along their lengths.

101. (new) The method of claim 92, wherein a plurality of bristles are injected with parallel mutual orientation.

102. (new) The method of claim 92, wherein at least one part of the bristles is injected in a non-parallel fashion.

103. (new) The method of claim 92, wherein bristles of a same geometry but different bending elasticity (hardness) are produced through injection-molding of different molten polymer masses in same molding channels.

104. (new) The method of claim 75, wherein the bristles are injected from a polymer or a polymer mixture which has reduced secondary binding forces in a solidified state.

105. (new) The method of claim 75, wherein the bristles are injected from a polymer including additives which become active during use.

106. (new) A device for injection molding of bristles from thermoplastic polymers, the device comprising:

means for generating an injection pressure of at least 500 bar (0.5×10^5 kPa);

an injection mold having at least one supply channel for a molten polymer mass and defining at least one mold cavity in a form of a molding channel, said molding channel having a mold contour corresponding to a length and cross sectional shape of bristles to be produced, a ratio of a largest width of a molding channel cross section to a molding channel length being less than or equal to 1:10; and

venting means communicating with said molding channel to release air displaced during molding, said venting means having venting cross sections distributed along a length of said molding channel, wherein a shear flow can be established with high core speed in a center of the molten polymer mass and with large shearing effect at a wall of said molding channel.

107. (new) The device of claim 106, wherein said means for generating an injection pressure is designed such that injection pressures of between 2000 and 5000 bar ($2x10^5$ kPa to $5x10^5$ kPa) can be set depending on said length and said cross sectional shape of said molding channel.

108. (new) The device of claim 106, wherein said means for generating an injection pressure and said venting cross sections on said molding channel are designed such that the molten polymer mass in said molding channel has a specific pressure of at least 300 bar ($0.3x10^5$ kPa).

109. (new) The device of claim 106, wherein the injection pressure can be controlled depending on said length and said cross-sectional shape of said molding channel.

110. (new) The device of claim 106, wherein said venting means have venting cross sections, which can be controlled depending on a specific pressure.

111. (new) The device of claim 106, wherein said injection mold comprises means for cooling.

112. (new) The device of claim 111, wherein said molding channel has an associated coolant in the injection mold.

113. (new) The device of claim 106, wherein said injection mold comprises several molding plates which are layered transverse to a longitudinal extension of said molding channel, each plate defining a longitudinal section of said molding channel.

114. (new) The device of claim 113, wherein said venting means are formed on said molding plates.

115. (new) The device of claim 114, wherein said venting means are formed between mutually facing support surfaces of said molding plates.

116. (new) The device of claim 115, wherein said venting means are formed through gaps between mutually facing surfaces of said molding plates.

117. (new) The device of claim 115, wherein said venting means are formed by surface roughnesses on surfaces of said molding plates.

118. (new) The device of claim 106, wherein said venting means have venting cross sections with widths between 5µm and 300µm at a mold surface of said molding channel.

119. (new) The device of claim 106, wherein said venting means have venting cross sections which widen outwardly starting from a mold surface of said molding channel.

120. (new) The device of claim 106, wherein said venting means are connected to an external underpressure source.

121. (new) The device of claim 106, wherein said molding channel has a cross section which remains substantially constant along said length.

122. (new) The device of claim 106, wherein said molding channel has a cross section which tapers substantially uniformly towards an end of said channel.

123. (new) The device of claim 122, wherein said molding channel has a linear axis and tapers with an angle of less than 1.0 degrees (mold slope).

124. (new) The device of claim 106, wherein said molding channel has a cross section which tapers discontinuously towards an end of said molding channel.

125. (new) The device of claim 106, wherein a largest width of said cross section of said molding channel is $\leq$ 3mm.

126. (new) The device of claim 106, wherein at least one injection-side molding plate, having a widening which narrows towards said molding channel, is connected to said molding channel upstream of said molding channel at a side facing a supply channel.

127. (new) The device of claim 106, wherein a ratio of a largest width of said cross section of said molding channel to said length thereof is between 1:10 and 1:1000.

128. (new) The device of claim 113, wherein a number and thickness of said molding plates is matched to said length of said molding channel.

129. (new) The device of claim 113, wherein a number of said molding plates is inversely proportional to a ratio of a largest inside diameter of said cross section to said length of said molding channel.

130. (new) The device of claim 113, wherein said molding plates have a thickness which is approximately three to fifteen times an average diameter of said molding channel.

131. (new) The device of claim 113, wherein said molding plates can be moved perpendicular to a plane of said molding plates, either individually or in groups.

132. (new) The device of claim 113, wherein at least some of said molding plates can be displaced parallel to neighboring ones of said molding plates.

133. (new) The device of claim 131, wherein said molding plates can be sequentially removed, individually or in groups during release from the mold.

134. (new) The device of claim 131, wherein a molding plate facing a supply channel can be removed last during release from the mold.

135. (new) The device of claim 106, wherein said injection mold has molding channels of different lengths and/or different cross-sectional shapes.

136. (new) The device of claim 113, wherein a standard structure of said injection mold for producing bristles of a given length has a number of molding plates standardized thereto and a standardized number of molding plates can be removed or inserted to vary a bristle length.

137. (new) The device of claim 113, wherein said injection mold has molding channels with a central axis which extends at an angle that is inclined relative to a direction of motion of said molding plates and each of said molding plates has a longitudinal section of said molding channel which is dimensioned such that release from the mold is possible through successive removal of individual said molding plates, despite said angular deflection.

138. (new) The device of claim 113, wherein said injection mold comprises molding channels with a central axis having a curvature relative to a direction of motion of said molding plates and each of said molding plates has a longitudinal section of said molding channel which is dimensioned such that release from the mold is

possible through successive lifting of individual said molding plates, in dependence on said curvature.

139. (new) The device of claim 113, wherein said injection mold has at least one said molding plate which can be displaced in a plane relative to the neighboring said molding plates to form, after injection molding of the bristles, a clamping means for all bristles which acts at a corresponding part of said length of the molding channel.

140. (new) The device of claim 139, wherein said molding plates forming said clamping means can be moved in a mold release direction and opposite thereto.

141. (new) The device of claim 139, wherein said molding plates forming said clamping means can be moved together with clamped bristles after removal from said injection mold for handling and spatial displacement of the bristles.

142. (new) The device of claim 139, wherein said molding plates forming said clamping means can be removed and replaced by a set of identical said molding plates for renewed completion of said injection mold for a further injection cycle.

143. (new) The device of claim 139, wherein said injection mold comprises at least two groups of said molding plates each having one clamping means, of which a first group comprises a part of said molding channel including an end and other groups form a remaining part of said molding channel, wherein said first group can be subsequently removed from a second group and said second group from further groups, with an injection process being

divided into a number of injection molding cycles corresponding to a number of groups such that, in a closed initial position of said injection mold, a first molten polymer mass is injected into a complete molding channel in a first injection molding cycle, whereupon said first group can be removed from others thereby carrying along a blank via said clamping means, with a withdrawal path being shorter than a length of said blank, and additional molten polymer mass is subsequently injected into a freed longitudinal section of said molding channel in said further groups during a second injection molding cycle, and steps of injection/removal are repeated until a penultimate group is removed from a last group, to produce bristles of a greater length than said length of said molding channel.

144. (new) The device of claim 143, wherein the additional molten polymer comprises a different polymer than the first molten polymer mass.

145. (new) The device of claim 113, wherein at least a molding plate defining a mold contour at an end of said molding channel can be replaced by a molding plate having another mold contour for generating bristles with ends having different shapes.

146. (new) The device of claim 113, wherein at least a molding plate having a mold contour at an end of said molding channel can be replaced by a molding plate with different longitudinal sections of said molding channels.

147. (new) The device of claim 106, wherein a mold cavity connecting two or more of said molding channels is disposed between said